

TRANSMITTAL OF INFORMATION DISCLOSURE STATEMENT
(Under 37 CFR 1.97(b) or 1.97(c))

Docket No.

RB1D00112CIPUS

In Re Application Of: KRATZSCH, Peter et al.

Serial
10/082,627

Filing Date
October 29, 2001

Examiner
To Be Assigned

Group Art Unit
To Be Assigned

Title: NEW FORMS OF SOLUBLE PYRROLOQUINOLINE QUINONE-DEPENDENT GLUCOSE

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37 CFR 1.97(b)

1. ☒ The Information Disclosure Statement submitted herewith is being filed within three months of the filing of a national application other than a continued prosecution application under 37 CFR 1.53(d); within three months of the date of entry of the national stage as set forth in 37 CFR 1.491 in an international application; before the mailing of a first Office Action on the merits, or before the mailing of a first Office Action after the filing of a request for continued examination under 37 CFR 1.114.

37 CFR 1.97(c)

2. ☐ The Information Disclosure Statement submitted herewith is being filed after the period specified in 37 CFR 1.97(b), provided that the Information Disclosure Statement is filed before the mailing date of a Final Action under 37 CFR 1.113, a Notice of Allowance under 37 CFR 1.311, or an Action that otherwise closes prosecution in the application, and is accompanied by one of:

☐ the statement specified in 37 CFR 1.97(e);

OR

☐ the fee set forth in 37 CFR 1.17(p).

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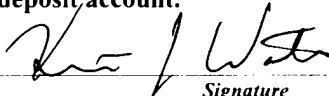
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<p style="text-align: center;">INFORMATION DISCLOSURE CITATION (Use several sheets if necessary)</p>	ATTY DOCKET NO. RDID00112CIP	SERIAL NO. 10/082,627
	KRATZSCH, Peter et al.	
	FILING October 10, 2001	GROUP To Be Assigned

U.S. PATENT DOCUMENTS							
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE	
	1	5,484,708	01/96	Hoenes et al.	435	14	
	2	5,997,817	12/99	Crismore et al.	422	58	
	3	6,057,120	05/00	Heindl et al.	435	25	
	4	6,103,509	08/00	Sode	435	190	

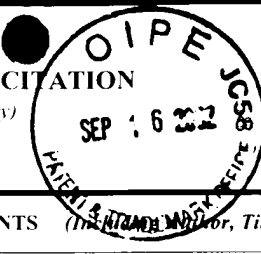
FOREIGN PATENT DOCUMENTS								
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION		
						YES	NO	
	5	EP 0620283 B1	10/94	Europe	C12Q	1/32	ABSTRACT	
	6	WO 88/09373	12/88	PCT	C12N	15/00	ABSTRACT	
	7	WO 92/07953	05/92	PCT	C12Q	1/32		
	8	WO 99/30152	06/99	PCT	G01N	33/48		
	9	WO 00/61730	10/00	PCT	C12N	9/04	ABSTRACT	

OTHER DOCUMENTS	(Including Author, Title, Date, Pertinent Pages, Etc.)

EXAMINER	DATE CONSIDERED
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

INFORMATION DISCLOSURE CITATION <i>(Use several sheets if necessary)</i>		Docket Number (Optional) RDID00112CIR	Application Number 10/082,627
		Applicant(s) KRATZSCH, Peter et al.	
		Filing Date October 29, 2001	Group Art Unit To Be Assigned
*EXAMINER INITIAL	OTHER DOCUMENTS <i>(Including Author, Title, Date, Pertinent Pages, Etc.)</i>		
13	Anthony, Christopher et al., "The structure and function of PQQ-containing quinoproteins," <i>Current Science</i> , Vol. 72, No. 10, 25 May 1997, pgs 716-727		
14	Anthony, Christopher et al., "The structure and function of PQQ-containing quinoprotein dehydrogenases," <i>Progress in Biophysics & Molecular Biology</i> 69 (1998) 1-21		
15	Cleton-Janson, Anne-Marie et al., "Cloning, characterization and DNA sequencing of the gene encoding the Mr 50 000 quinoprotein glucose dehydrogenase from <i>Acinetobacter calcoaceticus</i> ," <i>Mol. Gen. Genet</i> (1989) 217:430-436		
16	Cleton-Jansen, Anne-Marie et al., "Cloning of the Genes Encoding the Two Different Glucose Dehydrogenases from <i>Acinetobacter Calcoaceticus</i> ," <i>Antonie van Leeuwenhoek</i> 56: 73-79 (1989)		
17	Cleton-Jansen, Anne-Marie et al., "Cloning of the Gene Encoding Quinoprotein Glucose Dehydrogenase from <i>Acinetobacter calcoaceticus</i> : Evidence for the Presence of a Second Enzyme," <i>Journal of Bacteriology</i> , May 1988, p. 2121-2125		
18	D'Costa, E.J. et al., "Quinoprotein Glucose Dehydrogenase and its Application in an Amperometric Glucose Sensor," <i>Biosensors 2</i> (1986) 71-87		
19	Dokter, Paul et al., "Cytochrome b-562 from <i>Acinetobacter calcoaceticus</i> L.M.D. 79.41" <i>Biochem. J.</i> (1988) 254, 131-138		
20	Dokter, P. et al., "The in vivo and in vitro substrate specificity of quinoprotein glucose dehydrogenase of <i>Acinetobacter calcoaceticus</i> LMD 79.41," <i>FEMS Microbiology Letters</i> 43 (1987) 195-200		
21	Dokter, Paul et al., "Purification and characterization of quinoprotein glucose dehydrogenase from <i>Acinetobacter calcoaceticus</i> L.M.D. 79.41," <i>Biochem. J.</i> (1986) 239, 163-167		
22	Duine, J.A. et al., "Different Forms of Quinoprotein Aldose-(Glucose-) Dehydrogenase in <i>Acinetobacter calcoaceticus</i> ," <i>Arch Microbiol</i> (1982) 131: 27-31		
23	Duine, J.A. et al., "Energy Generation and the Glucose Dehydrogenase Pathway in <i>Acinetobacter</i> ," <i>The Biology of Acinetobacter</i> , pgs. 295-312, 1991		
24	Duine, J.A. et al., "The importance of natural diversity in redox proteins for achieving cofactor-electrode-directed electron transfer," <i>Biosensors & Bioelectronics</i> 10 (1995) 17-23		
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 <p>INFORMATION DISCLOSURE CITATION (Use several sheets if necessary)</p>		Docket Number (Optional) RDID00112CIT	Application Number 10/082,627
Applicant(s) KRATZSCH, Peter et al.		Filing Date October 29, 2001	
Group Art Unit To Be Assigned			

*EXAMINER INITIAL	OTHER DOCUMENTS (In addition to Cover, Title, Date, Pertinent Pages, Etc.)
25	Duine, Johannis A. et al., "Quinoproteins: enzymes containing the quinonoid cofactor pyrroloquinoline quinone, topaquinone or tryptophan-tryptophan quinone," Eur. J. Biochem. 200, 271-284 (1991)
26	Goodwin, Pat M. et al., "The Biochemistry, Physiology and Genetics of PQQ and PQQ-Containing Enzymes," Advances in Microbial Physiology, Vol. 40, pgs 1-80
27	Hill, David E. et al., "Mutagenesis with Degenerate Oligonucleotides: An Efficient Method for Saturating a Defined DNA Region with Base Pair Substitutions," Mutagenesis with Degenerate Oligonucleotides, pgs 558-569
28	Igarashi, Satoshi et al., "Construction and Characterization of Mutant Water-Soluble PQQ Glucose Dehydrogenases with Altered Km Values-Site-Directed Mutagenesis Studies on the Putative Active Site," Biochemical and Biophysical Research Communications 264, 820-824 (1999)
29	Kaufmann, Norbert et al., "Development and evaluation of a new system for determining glucose from fresh capillary blood and heparinised venous blood," Glucotrend (18 pgs.) (Additional bibliographic information has been requested and will be submitted when received)
30	Laurinavicius, Valdas et al., "A Novel Application of Heterocyclic Compounds for Biosensors Based on NAD, FAD, and PQQ Dependent Oxidoreductases," Monatshefte fur Chemie 130, 1269-1281 (1999)
31	Laurinavicius, V. et al., "Oxygen Insensitive Glucose Biosensor Based on PQQ-Dependent Glucose Dehydrogenase," Analytical Letters, 32(2), 299-316 (1999)
32	Leung, David W. et al., "A Method for Random Mutagenesis of a Defined DNA Segment Using a Modified Polymerase Chain Reaction," Technique-A Journal of Methods in Cell and Molecular Biology, Vol. 1, No 1 (August), 1989: pp 11-15
33	Matsushita, Kazunobu et al., "Bacterial Quinoproteins Glucose Dehydrogenase and Alcohol Dehydrogenase," Matsushita and Adachi, Pgs 47-63 (Additional bibliographic information has been requested and will be submitted when received)
34	Matsushita, Kazunobu et al., "Quinoprotein D-glucose dehydrogenases in Acinetobacter calcoaceticus LMD 79.41: Purification and characterization of the membrane-bound enzyme distinct from the soluble enzyme," Antonie van Leeuwenhoek 56: 63-72 (1989)
35	Matsushita, Kazunobu et al., "Quinoprotein D-Glucose Dehydrogenase of the Acinetobacter calcoaceticus Respiratory Chain: Membrane-Bound and Soluble Forms Are Different Molecular Species," Biochemistry, 1989, 28, 6276-6280
36	Matsushita, Kazunobu et al., "Soluble and Membrane-bound Quinoprotein D-Glucose Dehydrogenases of the Acinetobacter calcoaceticus: The Binding Process of PQQ to the Apoenzymes," Biosci. Biotech. Biochem., 59 (8), 1548-1555, 1995

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Group Art Unit To Be Assigned			

*EXAMINER INITIAL	OTHER DOCUMENTS	(Including Author, Title, Date, Pertinent Pages, Etc.)
	37	Oliphant, Arnold R. et al., "Cloning of random-sequence oligodeoxynucleotides," <i>Gene</i> , 44 (1986) 177-183
	38	Olsthoorn, Arjen J. J. et al., "On the Mechanism and Specificity of Soluble, Quinoprotein Glucose Dehydrogenase in the Oxidation of Aldose Sugars," <i>Biochemistry</i> , 1998, 37, 13854-13861
	39	Olsthoorn, Arjen J. J. et al., "Production, Characterization, and Reconstitution of Recombinant Quinoprotein Glucose Dehydrogenase (Soluble Type; EC 1.1.99.17) Apoenzyme of <i>Acinetobacter calcoaceticus</i> ," <i>Archives of Biochemistry and Biophysics</i> , Vol. 336, No. 1, December 1, pp. 42-48, 1996
	40	Oubrie, Arthur et al., "Active-site structure of the soluble quinoprotein glucose dehydrogenase complexed with methylhydrazine: A covalent cofactor-inhibitor complex," <i>PNAS</i> , October 12, 1999, Vol. 96, No. 21, 11787-11791
	41	Oubrie, Arthur et al., "Structure and mechanism of soluble quinoprotein glucose dehydrogenase," <i>The EMBO Journal</i> , Vol. 18, No. 19, pp. 5187-5194, 1999
	42	Oubrie, Arthur et al., "Structural requirements of pyrroloquinoline quinone dependent enzymatic reactions," <i>Protein Science</i> (2000), 9:1265-1273
	43	Oubrie, Arthur et al., "The 1.7 Å Crystal Structure of the Apo Form of the Soluble Quinoprotein Glucose Dehydrogenase from <i>Acinetobacter calcoaceticus</i> Reveals a Novel Internal Conserved Sequence Repeat," Article No. jmbi, 1999.2766, <i>J. Mol. Biol.</i> (1999) 289, 319-333
	44	Wens, Robert et al., "A Previously Undescribed Side Effect of Icodextrin: Overestimation of Glycemia by Glucose Analyzer," <i>Peritoneal Dialysis International</i> , Vol. 18, pp. 603-609, 1998
	45	Ye, Ling et al., "High Current Density "Wired" Quinoprotein Glucose Dehydrogenase Electrode," <i>Anal. Chem.</i> 1993, 65, 238-241
	46	Database WPI, Section Ch, Week 200066, Derwent Publications Ltd., London, GB, Class B04, AN 2000-679762, XP002168297
	47	Database WPI, Section Ch, Week 200064, Derwent Publications Ltd., London, GB, Class B04, AN 2000-665126, XP0061730
	48	Japanese Abstract, JP11243949, Takeshima Seiji et al.

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